

## **REMARKS**

Applicants acknowledge with appreciation the indication that claims 5 and 7-11 define patentable subject matter and would be allowable if rewritten in independent form. Accordingly, claims 5, 7 and 8 have been rewritten in independent form and therefore, each of claims 5 and 7-11 is believed to be in condition for allowance.

### **Claim 1**

Claim 1 was rejected under 35 U.S.C. §102(b) or in the alternative 103(a) as being unpatentable over U.S. Patent No. 4,455,266 to Gerhardy. Gerhardy discloses a carburetor for internal combustion engines that has a fuel metering assembly with an equalizing chamber 27 that can be selectively connected by a change-over valve 31 with either a crankcase housing of the engine or with the atmosphere. Gerhardy teaches that the equalizing chamber 27 is connected with the crankcase housing during starting of the engine to facilitate the flow of fuel from the fuel pump of the carburetor into a control chamber 4. The equalizing chamber 27 is connected to the atmosphere in normal operation of the engine. Gerhardy states that this arrangement improves the ease with which the engine may be started. But Gerhardy fails to teach, disclose or even suggest the collection of fuel vapor within the control chamber 4 or fuel metering assembly at all. Indeed, the "groove" relied upon by the examiner in Gerhardy is nothing more than a small diameter, blind bore in which cross-drilled fuel passages 25 extend for communication with the fuel metering assembly. The blind bore extends axially from an end communicating with the control chamber 4 to an end that is closed within the body 1 of a carburetor. The small diameter blind bore does not

extend outwardly from the openings but rather, the openings 25 communicate with the peripheral edge of the blind bore.

As amended, claim 1 defines a carburetor having a body, a fuel metering assembly and a groove formed in the body and open to a fuel chamber. The groove communicates at one end with the opening so that fluid in the groove is communicated with the fuel air mixing passage and extends outwardly from the opening to an end spaced from the opening. The Gerhardy reference fails to teach, disclose or even suggest such a construction and arrangement of the carburetor. For example, without limitations, Gerhardy fails to disclose a groove that extends outwardly from an opening as recited in claim 1. The blind bore in Gerhardy only extends axially into the carburetor body to commutate the openings 25 with the control chamber 4. Accordingly, the carburetor in Gerhardy does nothing to prevent the collection of fuel vapor in other areas of the control chamber 4 or in any area spaced outwardly from the openings 25. For at least this reason, claim 1 as amended defines patentable subject matter over the Gerhardy reference.

#### **Dependent Claims 2-4, 6, 12 and 13**

Each of dependent claims 2-4, 6, 12 and 13 is dependent upon claim 1 and defines patentable subject matter for at least those reasons that claim 1 is patentable. With regard to claim 3, the word "vapor" has been deleted to obviate the §112 rejection of claim 3.

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Gerhardy in view of Amou et al. Amou et al is not relevant to the present application in that it discloses a heater and vaporizer arrangement that is downstream from an electronic fuel injector and adapted to disburse injected fuel across a wide surface area heater to uniformly vaporize the

liquid fuel for the stated purpose of facilitating its combustion. The plurality of grooves 201 relied upon by the Examiner are in fact a spiral groove along the peripheral surface of an internal cylinder 200 of the heater 101. While the Examiner states that it would have been obvious to one of ordinary skill in the art to employ a plurality of grooves in the Gerhardy carburetor to facilitate vaporization as taught by Amou, such vaporization of the fuel in a fuel chamber of a diaphragm-type carburetor generally is not sought. Accordingly, one of ordinary skill in the art would not be motivated to combine Gerhardy and Amou in any manner, let alone as suggested by the Examiner. Indeed, the Examiner has failed to identify any teaching or suggestion for the proposed combination of Gerhardy and Amou et al. Neither reference teaches or even suggests which of its numerous elements should be selected and which other elements should be discarded and rearranged in a manner not disclosed in either reference to arrive at Applicants' construction and arrangement as recited in claim 4. Accordingly, claim 4 defines patentable subject matter over all the references whether cited alone or in combination.

#### **New Claims 14-17**

Each of new claims 14-17 is dependent upon claim 1 and hence, defines patentable subject matter for at least those reasons that claim 1 is patentable. New claim 14 recites that the body of the carburetor in claim 1 includes a cavity that defines part of the fuel chamber and the groove extends outwardly beyond the periphery of the cavity. None of the cited references disclose, teach or even suggest such a construction and arrangement. New claim 15 provides that the groove extends from an opening to a periphery of the fuel chamber. Again, none of the cited references disclose, teach or even suggest such a construction and

arrangement. The Gerhardy reference, merely discloses a small diameter blind bore communicating the fuel chamber with a pair of cross drilled fuel passages 25. The blind bore does not extend from either of the openings to a periphery of the fuel chamber.

New claim 16 recites that carburetor includes a diaphragm and the groove extends from the opening to a junction between the diaphragm and body. New claim 17 recites that the groove has a length between its ends that is greater than its depth in the body. None of the cited art disclose or suggest such a construction or arrangement.

### **CONCLUSION**

Each of claims 1-17, as amended or newly presented, is believed to define patentable subject matter over all the references. Accordingly, reconsideration and allowance of each of these claims is respectfully requested.

If, after considering this Response, the Examiner believes any of the claims are not in condition for allowance, it is respectfully requested that the Examiner initiate a telephone interview with Applicant's undersigned attorney, Matthew J. Schmidt, whose telephone number is (248) 689-3500, so immediate consideration can be given to any further amendment suggested by the Examiner or needed to place all of the claims in condition for allowance.

Applicant encloses a check in the amount of \$200.00 for payment of one extra independent claim. Any additional fee deemed necessary for this response may to be charged to deposit account no. 50-0852.

Respectfully Submitted,



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